

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
29 April 2004 (29.04.2004)

PCT

(10) International Publication Number  
**WO 2004/036748 A3**

(51) International Patent Classification<sup>7</sup>: **H03K 19/007**,  
19/007, H04L 25/08

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(21) International Application Number:  
PCT/IB2003/004216

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(22) International Filing Date:  
19 September 2003 (19.09.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
02079358.4 21 October 2002 (21.10.2002) EP

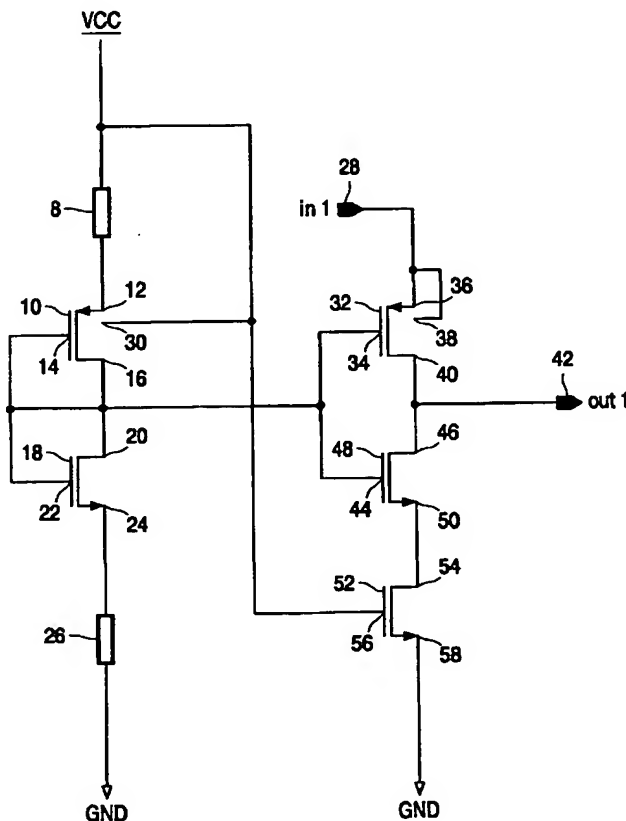
(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

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(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: FAIL-SAFE METHOD AND CIRCUIT



(57) Abstract: A method and a circuit for producing a fail-safe output signal in case of an open circuit condition of an input pad of a digital circuit unit, comprising a first inverter stage (10, 18) providing a constant switch level; a second inverter stage (32, 44) providing a variable switch level that depends of the signal level of the input pad (28) and comparing the constant switch level of the first inverter stage (10, 18) with the variable switch level of the second stage (32, 44) and providing an output signal at an output terminal (42) thereof if the variable switch level of the second stage (32, 44) is greater than the constant switch level; and an additional circuit element (52) connected in series with the second inverter (32, 44) for decreasing the switch level of the second inverter stage (32, 44).



European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

**Declaration under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU,*

**Published:**

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

**(88) Date of publication of the international search report:**

28 October 2004

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 03/04216

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H03K19/007 H03K19/007 H04L25/08

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H03K H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 288 577 B1 (WONG ANTHONY YAP) 11 September 2001 (2001-09-11) cited in the application column 1, line 23 - column 2, line 22; figure 1 column 3, line 30 - column 4, line 59; figure 4	1, 2, 11
A	US 6 320 406 B1 (CARVAJAL FERNANDO D ET AL) 20 November 2001 (2001-11-20) cited in the application the whole document	1, 2, 11



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Date of the actual completion of the international search

16 August 2004

Date of mailing of the international search report

23/08/2004

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International Application No  
PCT/IB 03/04216

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 0174, no. 01 (E-1404), 27 July 1993 (1993-07-27) & JP 5 075430 A (MITSUBISHI ELECTRIC CORP), 26 March 1993 (1993-03-26) abstract -----	1,2,11
A	KNIGHT T F ET AL: "A SELF-TERMINATING LOW-VOLTAGE SWING CMOS OUTPUT DRIVER" IEEE JOURNAL OF SOLID-STATE CIRCUITS, IEEE INC. NEW YORK, US, vol. 23, no. 2, 1 April 1988 (1988-04-01), pages 457-464, XP002031275 ISSN: 0018-9200 paragraph '000V!; figures 11,12 -----	1-7,11
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